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Remarks

This Amendment is responsive to the January 28, 2008 Office Action. Reexamination and reconsideration of claims 1-36 and 38-47 is respectfully requested.

Summary of The Office Action

Claims 1, 3-9, 21, 23-27, 29-32, 35, 36, 38-43 and 47 were rejected under 35 U.S.C. §102(b) as being anticipated by Schloeman et al. (US 6,659,581 B2).

Claims 33 and 34 were rejected under 35 U.S.C. §103(a) as being unpatentable over Schloeman et al.

Claims 2, 22, and 28 were rejected under 35 U.S.C. §103(a) as being unpatentable over Schloeman et al, in view of Axtell et al. (US 2002/0060722 A1).

Claims 10-20 and 44-46 were rejected under 35 U.S.C. §103(a) as being unpatentable over Schloeman et al. in view of Cleland et al. (US 6,491,377 B1).

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The Claims Patentably Distinguish Over the References of Record

Claims 1, 3-9, 21, 23-27, 29-32, 35, 36, 38-43 and 47 were rejected under 35 U.S.C. §102(b) as being anticipated by Schloeman et al. (US 6,659,581 B2).

For a 35 U.S.C. §102 reference to anticipate a claim, the reference must teach every element of the claim. Section 2131 of the MPEP recites:

A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference. *Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987).

Independent Claim 1

Claim 1 was rejected under 35 U.S.C. §102 as being anticipated by Schloeman. Applicant respectfully submits that Schloeman does not anticipate claim 1 for several reasons. First, the pulse width registers of Schloeman do not teach the address generators of claim 1. Second, the fire pulse generators of Schloeman do not teach the address generators of claim 1. Third, the fire_pulse_1-n signals of Schloeman do not teach the address signals of claim 1. Fourth, the fire pulse generators of Schloeman cannot teach both the drop generators and the address generators of claim 1 as proposed by the Office Action. The rejection is improper.

I. The Pulse Width Registers of Schloeman Do Not Teach The Address Generators of Claim 1

Claim 1, lines 6-8 recite "a first address generator configured to provide first address signals; a second address generator configured to provide second address signals." The Office Action states, on page 2, that the first and second address generators of claim 1 are taught by elements 110a-110n and 118a-118n of Schloeman (fig. 4).

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Elements 110a-110n are pulse width registers where each register stores a pulse width value that controls the width of a fire pulse. The pulse width registers do not generate addresses. Schloeman describes the registers as follows:

Pulse width registers 110a-110n store pulse width values which are employed to determine the widths of the fire pulses provided from fire pulse generator circuitry 100. Pulse width registers 110a-110n respectively provide pulse counts 1, 2, . . . , N on busses 116a, 116b, . . . , 116n, which represent the corresponding pulse width values stored in pulse width registers 110a-110n. Each pulse width register 110a-110n stores an appropriate number of bits in the pulse width value to properly encode the desired width of the corresponding fire pulse from fire pulse generator circuitry 100.

(Schloeman, col. 8, lines 18-28)

Thus, the output from a pulse width register 110a is a pulse width value. The output is provided as "pulse count 1" on bus 116a, and is not an address (see fig. 4). The pulse count is a value to control the desired width of a fire pulse. Neither the pulse count register nor the pulse count value teaches the address generators of claim 1. Schloeman thus fails to anticipate the claim for at least this reason and fails to establish a *prima facie* anticipation rejection.

II. The Fire Pulse Generators of Schloeman Do Not Teach The Address Generators of Claim 1

The fire pulse generators generate fire signals. The fire pulse generators do not generate addresses. Schloeman describes the fire pulse generator as follows:

Fire pulse generator circuitry 100 includes N fire pulse generators 118a, 118b, . . . , 118n corresponding to pulse width registers 110a-110n respectively. Fire pulse generators 118a-118n all receive the begin_pulse signal on line 108 from start_fire detection circuit 102 and the clock signal on line 106. In addition, fire pulse generators 118a-118n receive the pulse counts 1-N on busses 116a-116n respectively. Fire pulse generators 118a-118n respectively provide the fire signals fire_pulse_1, fire_pulse_2, . . . , fire_pulse_N respectively on lines 120a, 120b, . . . , 120n.

(Schloeman, col. 8, lines 30-39)

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Thus, the output from a fire pulse generator 118a is a fire signal. The fire signal is used to control the ejection of ink drops from the nozzles of a print head (Schloeman, col. 9, lines 21-23). Because the fire pulse generator generates a fire signal used to control ink drops, it is not an address. Therefore, the fire pulse generators are not address generators.

The pulse width registers 110a-110n and the fire pulse generators 118a-118n are not address generators. They do not alone or in combination teach the first and second address generators recited in claim 1.

III. The Fire Pulse 1-n Signals of Schoelman Do Not Teach The Address Signals of Claim 1

The Office Action states on page 2 that the fire_pulse_1-n signals teach the address signals recited in claim 1. As seen in figure 4 of Schoelman, "Address Bus 114" is input to the pulse width registers. "Pulse width registers 110a-110n receive data on data_bus 112 and addresses from address_bus 114." (col. 8, lines 15-17). Therefore, the pulse width registers do not generate addresses and do not provide addresses, but rather receive addresses and then generate fire_pulse signals, which are not addresses. Accordingly, the fire_pulse_1-n signals do not teach the addresses recited in claim 1 and Schloeman fails to teach the claim for this additional reason.

IV. The Fire Pulse Generators of Schloeman Cannot Teach Both The Drop Generators and The Address Generators of Claim 1

The Office Action asserts on page 2 that fire pulse generators teach the drop generators recited in claim 1 by citing Schloeman, column 2, lines 32-41 and figure 4. This citation refers to the same fire pulse generators discussed above that the Office Action attempted to use to teach the address generators. In claim 1 the drop generator responds to an energy signal to eject fluid and the address generators provide address signals. These claim elements are different elements and perform

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different operations. Therefore, the same component (fire pulse generator) can not and does not teach both the drop generators and the address generators of claim 1.

Neither the pulse count register nor the pulse count value are address generators as recited in claim 1. The fire_pulse_1-n signals are not the addresses recited in claim 1. As such, Schloeman fails to anticipate each and every element of claim 1 and fails to establish a *prima facie* anticipation rejection. The rejection should be withdrawn. Accordingly, as such, **dependent claims 2-20** also are not taught or suggested by the reference and patentably distinguish over the references.

Independent Claim 21

The Office Action on page 2 cites Schloeman figure 4, elements 110a-110n and 118a-118n as well as the fire_pulse_1-n signals as teaching the recited means for generating first address signals and means for generating second address signals. Based on the explanation of Schloeman under claim 1, elements 110a-110n and 118a-118n do not teach address generators and the fire_pulse_1-n signals are not addresses, thus claim 21 is not anticipated. The rejection should be withdrawn.

Independent Claim 26 and 43

Similarly, the Office Action cites elements 110a/110n and 118a/118n as well as the fire_pulse_1-n signals as teaching the claimed elements relating to generating first and second address signals. Elements 110-110n and 118a-118n do not teach generating addresses and the fire_pulse_1-n signals are not addresses. Furthermore since elements 110-110n receive addresses as input on address bus 114, they do not generate addresses (see fig. 4). Thus, Schloeman does not anticipate either claim. The rejections should be withdrawn.

Independent Claim 35 and 39

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Claims 35 and 39 recite a first source of address signals and a second source of address signals. The pulse width registers 110a-110n, fire pulse generators 118a-118n and the fire_pulse_1-n signals were cited to teach the claimed elements. However as shown above, they do not. The rejections should be withdrawn.

The §103 Rejections

All the §103 rejections were based on the primary reference of Schloeman. It has been shown that Schloeman fails to support the rejection for which it is relied upon. The other references do not cure the deficiencies of Schloeman. Thus Schloeman fails to establish a *prima facie* obviousness rejection even when combined with other references. The §103 rejections are improper and should be withdrawn.

Conclusion

For the reasons set forth above, claims 1-36 and 38-47 patentably and unobviously distinguish over the references and are allowable. An early allowance of all claims is earnestly solicited.

Respectfully submitted,



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